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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,027	12/22/2005	Paul Charles Claydon		5558

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EXAMINER

KIRSCH, ANDREW THOMAS

ART UNIT	PAPER NUMBER
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3781

MAIL DATE	DELIVERY MODE
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03/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/562,027

Applicant(s)

CLAYDON, PAUL CHARLES

Examiner

ANDREW T. KIRSCH

Art Unit

3781

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 12/22/2005 and 4/30/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Closure with beaded center panel".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-4, 6-7 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,725,120 (Ramsey et al. hereinafter).
4. In re claim 1, with reference to Figs. 6 and 7 below, Ramsey et al. discloses: a closure for fixing to an open end of a container body, the closure comprising a diaphragm (31) bonded to an annular component (42), the diaphragm having a centre panel (32) which includes at least one concentric bead (41) such that when the closure is fixed to a container and subjected to pressure differentials, the diaphragm is deflectable outwardly to give an increase in container volume (column 4, lines 59-62), and in which the profile of the diaphragm beaded panel is selected so that its downward form extends at most to the lowest plane of the annular component (visible in Fig. 7).

Fig.6.

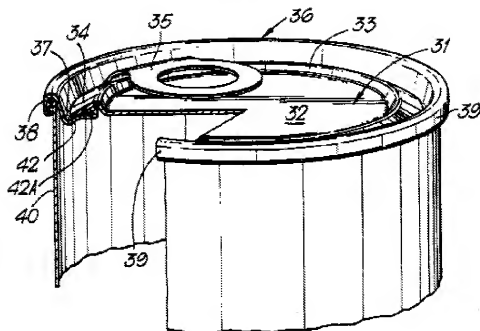
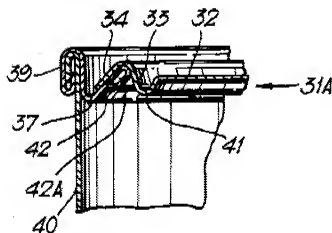


Fig.7.



5. In re claim 3, with reference to Figs. 6 and 7 above, Ramsey et al. discloses the claimed invention including wherein the diaphragm (31) is bonded to a panel of the

annular component (42) (column 4, lines 44-46), and that bonding panel extends in a first direction at an angle of 10° to 20° to the horizontal (visible in Fig. 6).

6. In re claim 4, with reference to Figs. 6 and 7 above, Ramsey et al. discloses the claimed invention including wherein the annular component (42) is a metal ring (column 4, line 44) adapted for seaming to a metal can body (column 4, lines 46-49).

7. In re claim 6, with reference to Figs. 6 and 7 above, Ramsey et al. discloses a product capable of having its in-can pressure controlled during thermal processing, comprising: bonding a panel to an inclined seal surface of an annular component; stretching the panel; fixing the annular component and panel bonded thereto to a filled can; processing the contents of the filled and closed can by heating to temperatures of up to 135°C; and providing, at least during the processing step, a generally dome shaped profile to the panel so as to provide an increase in can volume approximately equal to thermal expansion of the contents and gases in any headspace within the can (column 4, lines 13-19).

8. In re claim 7, with reference to Figs. 6 and 7 above, Ramsey et al. discloses the claimed method further comprising stretching the panel into a beaded profile which matches the fibre length of the generally domed shaped profile provided during thermal processing.

9. In re claim 11, with reference to Figs. 6 and 7 above, Ramsey et al. discloses the claimed invention including wherein the annular component is a metal ring adapted for seaming to a metal can body as described in re claim 4 above.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

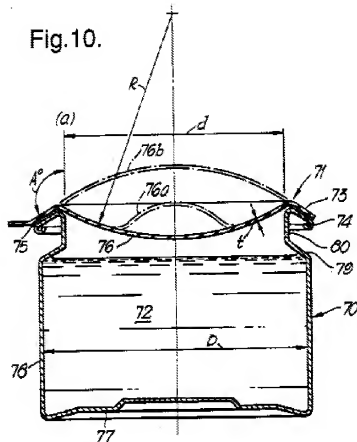
12. Claims 5, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsey et al.

13. In re claims 5, 13, and 14, with reference to the Figs. above, Ramsey et al. discloses the claimed invention in combination with a cylindrical container.

14. Ramsey et al. fails to disclose wherein said cylindrical container includes a side wall having a height which is less than the diameter of the container.

15. However, with reference to Fig. 10 below, Ramsey et al. discloses a separate embodiment of a container closure combination in which the height of the container is less than the diameter. Ramsey et al. also does not specify any criticality placed on the aspect ratio of the container.

Fig.10.



16. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have employed the closure as defined by Ramsey et al with the container shown in a later embodiment of Ramsey et al. Such a modification would have allowed one of ordinary skill in the art to have utilized a container of the specified dimensions depending on both the volume and type of contents stored and a desired portion thereof, while maintaining the same diameter closure system for commonality between products.

17. Claims 2, 8-10, 12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsey et al. as applied to claims 1, 6, and 7 above, and further in view of U.S. PG Pub No. 2002/0050493 (Ball et al. hereinafter).

18. In re claim 2, with reference to Figs. 6 and 7 above, Ramsey et al. discloses the claimed invention except wherein the maximum upward displacement of the diaphragm is no greater than the height of a seaming panel of the annular component.

19. However, with reference to Figs. 1 and 8 below, Ball et al. discloses a doming closure in which the maximum upward deflection of the lid (28) does not exceed the upper edge (18) of the lid rim (22). If the height of the lid did exceed that of the upper edge (18) it would be shown exposed above the upper edge (18). Ball et al. also discloses the desirability of controlling the height of the domed lid of a can (10a) as to not interfere with that of a stacked identical can (10) (paragraph [0068]).

20. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the domed lid of Ramsey et al. to have a height less than that of the seaming panel as taught by Ball et al. for the purposes of protecting the domed lid from damage circumstances such as stacking.

21. In re claim 8, with reference to Figs. 6 and 7 above, Ramsey et al. discloses the claimed method including wherein the inclined seal surface of the annular component is initially at an angle of from 10° to 60°.

22. Ramsey fails to disclose wherein the method further comprises reforming the seal surface to a shallower angle, or 0° after the processing step.

23. However, with reference to Fig. 3 below, Ball et al. teaches how the application of a shallow flange angle (planar flange), with the introduction of in-can pressure, results in a peeling force (F_T), inherently reducing the force to peel the closure required by a user.

24. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the method of Ramsey et al. by adding a step which flattens the annular flange for the purposes of reducing the applied peel force required by the user as taught by Ball et al.

25. In re claim 9, with reference to Figs. 6 and 7 above, Ramsey et al. in view of Ball et al. discloses the claimed invention including wherein the diaphragm is bonded to a panel of the annular component, and that bonding panel extends in a first direction at an angle of 10° to 20° to the horizontal as described in re claim 3 above.

26. In re claim 10, Ramsey et al. in view of Ball et al. discloses the claimed invention including wherein the annular component is a metal ring adapted for seaming to a metal can body as described in re claim 4 above.

27. In re claim 12, Ramsey et al. in view of Ball et al. discloses the claimed invention including in combination with a cylindrical container, said cylindrical container including a side wall having a height which is less than the diameter of the container as described in re claim 5 above.

28. In re claim 15, Ramsey et al. in view of Ball et al. discloses the claimed method including wherein the inclined seal surface of the annular component is initially at an angle of from 10° to 60° , and the method further comprises reforming the seal surface to a shallower angle, or 0° after the processing step as described in re claim 8 above.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 3,930,592 to Dilanni discloses a can closure structure which uses a corrugated lid structure to account for internal volume changes. U.S. Patent No. 2,027,430 to Hansen discloses a container closure with corrugations to accommodate internal pressure changes.

Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F. R. 1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims "define a patentable invention" without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, "The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims." Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP 2163.06 II(A), MPEP 2163.06 and MPEP 714.02. The "disclosure" includes the claims, the specification and the drawings. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW T. KIRSCH whose telephone number is (571)270-5723. The examiner can normally be reached on M-F, 8am-5pm, Off alt. Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T. Kirsch/

Examiner, Art Unit 3781

/Anthony D Stashick/
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Supervisory Patent Examiner, Art Unit 3781